



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,034	09/30/2003	Jon M. Speigle	7146.0201	7692
52894	7590	07/13/2005	EXAMINER	
SCOTT KRIEGER 4609 NW BASS ST. CAMSAS, WA 98607			CUNNINGHAM, GREGORY F	
			ART UNIT	PAPER NUMBER
			2676	

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/677,034	SPEIGLE ET AL.
	Examiner Gregory F. Cunningham	Art Unit 2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 September 2003.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-10 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 30 September 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>02/02/2004</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

1. This action is responsive to communications of application received 9/30/2003.
2. The disposition of the claims is as follows: claims 1 - 10 are pending in the application. Claims 1, 2, 4, 6, 9 and 10 are independent claims.
3. The group and/or Art Unit location of your application has changed. To aid in the correlation of any papers for this application, all further correspondence should be directed to Group Art Unit 2676 (effective 6/05). Please be sure to use the most current art unit number on all correspondence to help us route your case and respond to you in a timely fashion.
4. When making claim amendments, the applicant is encouraged to consider the references in their entireties, including those portions that have not been cited by the examiner and their equivalents as they may most broadly and appropriately apply to any particular anticipated claim amendments.

Claim Objections

5. Claim 1 is objected to because of the following informalities: Claim 1 should be terminated with a period. Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Art Unit: 2676

7. Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A. For claims 1-8, the methods comprise determining the data to be analyzed by subjecting the data to a mathematical manipulation (comparing).

B. For claim 9, the “set of executable instructions” may very well be a mental process augmented by pencil and paper markings.

C. For claim 10, the “processor” may very well be the humane mind (brain) for determining the data to be analyzed by subjecting the data to a mathematical manipulation (comparing).

(Examiner’s note: there is no mention of a digital computer or pixels in any of the claims.)

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being disclosed by Kim et al., (US Patent 6,249,601 B1), hereinafter Kim.

A. Claim 1, “A method for determining that an image element is likely to be self-luminous, the method comprising:

a. determining image element characteristics [col. 3, Ins. 8-67];

b. comparing the characteristics of said image element to those for known self-luminous elements [col. 1, lns. 42-63] wherein said comparing comprises at least one act taken from the set consisting of:

- (i) comparing the proximity of said image element to image boundaries with the proximity of known image elements to their boundaries [col. 1, lns. 47-51],
- (ii) comparing the color characteristics of said image element to characteristics of a known illuminant [col. 1, lns. 51-63], and
- (iii) comparing the luminance characteristics of said image element to characteristics of known self-luminous elements [col. 2, lns. 22-39];

c. assigning a self-luminosity weight factor to said image element [col. 2, lns. 25-39,

‘coefficient f’ corresponds to “weight factor”]; and

d. estimating a color balance correction for at least a portion of said image wherein said correction is based on said weight factor [col. 1, lns. 16-23]” is disclosed by Kim [as detailed].

B. Claim 2, “A method for determining that an image element is likely to be self-luminous, the method comprising:

- a. determining image element characteristics;
- b. comparing the color characteristics of said image element to those found under a known illuminant [col. 3, lns. 8-67];
- c. comparing the luminance characteristics of said image element to those found under a known illuminant [col. 1, lns. 47-63]; and

d. classifying said image element as likely to be self-luminous when at least one of said color characteristics and said luminance characteristics meet a criteria for self-luminous elements [col. 2, lns. 25-39]" is disclosed by Kim [as detailed].

C. Claim 3, "A method as described in claim 2 further comprising measuring the proximity of said image element to an image boundary and wherein said classifying further comprises evaluation of said proximity to determine whether said criteria are met [col. 1, lns. 51-63]" is disclosed by Kim supra for claim 2 and [as detailed].

D. Claim 4, "A method for estimating the illuminant of an image, the method comprising:

a. determining image element characteristics [col. 3, lns. 8-67];

b. assigning a weighting factor to each image element according to its likelihood of being self-luminous [col. 2, lns. 25-39, 'coefficient f' corresponds to "weight factor"];

c. estimating an illuminant for a plurality of image elements [col. 2, lns. 25-39, wherein 'self luminous area' corresponds to "plurality of image elements"];

d. estimating an image illuminant based on said illuminants for each image element adjusted by said weighting factors [col. 1, lns. 16-23]" is disclosed by Kim [as detailed].

E. Claim 5, "A method as described in claim 4 wherein the effect of said weighting factor is proportional to the likelihood that an image element is non-self-luminous [col. 2, lns. 25-39, wherein 'k' corresponds to "proportional to the likelihood"]" is disclosed by Kim supra for claim 4 and [as detailed].

F. Claim 6, "A method of correcting color-balance in an image, the method comprising:

a. obtaining image element characteristics for an image [col. 3, lns. 8-67];

- b. assigning a weighting factor to each image element according to its likelihood of being self-luminous [col. 2, Ins. 25-39, ‘coefficient f’ corresponds to “weight factor”];
- c. estimating an image illuminant based on said image element characteristics and said weighting factors [col. 2, Ins. 25-39]; and
- d. correcting image color-balance for said estimated illuminants [col. 1, Ins. 16-24; col. 9, Ins. 25-35]” is disclosed by Kim [as detailed].

G. Claim 7, “A method as described in claim 6 wherein said correcting comprises:

- a. correcting image elements that are not likely to be self-luminous for the estimated illuminant [col. 2, Ins. 35-58]; and
- b. omitting said correcting image color-balance for image elements that are likely to be self-luminous [col. 2, Ins. 35-58]” is disclosed by Kim supra for claim 6 and [as detailed].

H. Claim 8, “A method as described in claim 6 wherein said correcting comprises:

- a. correcting said image elements according to their likelihood of being self-luminous wherein a full correction is applied to elements that are least likely to be self-luminous, no correction is applied to elements that are most likely to be self-luminous and a partial correction is applied to elements that fall between these limits [col. 2, Ins. 25-53, wherein ‘f’ and ‘k’ are used to determine correction” is disclosed by Kim supra for claim 6 and [as detailed].

J. Per independent claim 9, this is directed to executable instructions for performing the method of independent claims 1: elements a and b, and 2: element d, and therefore is rejected to independent claims 1: elements a and b, and 2: element d.

K. Per independent claim 10, this is directed to a system for performing the method of independent claims 1: elements a and b, and 2: element d, and therefore is rejected to independent claims 1: elements a and b, and 2: element d.

Responses

10. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Inquiries

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory F. Cunningham whose telephone number is (571) 272-7784.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

On July 15, 2005, the Central FAX Number will change to **571-273-8300**. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until

September 15, 2005. After September 15, 2005, the old number will no longer be in service and **571-273-8300** will be the only facsimile number recognized for "centralized delivery".

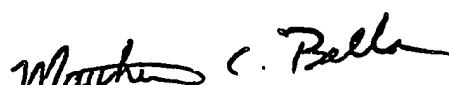
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory F. Cunningham
Examiner
Art Unit 2676

gfc

6/25/2005



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600